1. The cost of a compact disc holder is 25p.
John has £15 to spend.

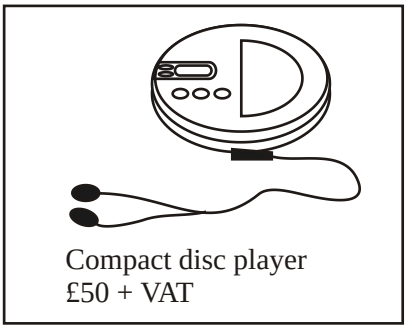
(a) What is the greatest number of compact disc holders that John can buy for £15?

.....

(3)

A compact disc player costs £50 plus 17½% VAT.

(b) Calculate the total cost of the compact disc player.



Compact disc player
£50 + VAT

£ .....

(3)
(Total 6 marks)

2. Ben bought a car for £12 000.
Each year the value of the car depreciated by 10%.

Work out the value of the car two years after he bought it.

£ …….

(Total 3 marks)

3. In a sale all the normal prices are reduced by 18%.
In the sale Mandy pays £12.71 for a hat.

Calculate the normal price of the hat.

£……..

(Total 3 marks)

Mark Scheme

1. (a) £1 ÷ 25p = 100 ÷ 25 = 4
15 × 4 = 60 3

M1 Conversion of £ to p eg × 100 or 1500
M1 (indep) 15 ÷ 25, 100 ÷ 25 = 4 (or 4 as a digit seen)
A1 cao

(b) eg 10%+5%+2.5%= £5+£2.50+£1.25
So VAT = £8.75
Total cost is £50+£8.75
= £58.75 3

M1 5, 2.5(0), 1.25 or 17.5 ÷ 2, 50×17.5÷100 oe
M1 "£8.75" + £50 where the "£8.75"has been derived from a percentage calculation
OR M2 for 50 × 1.175 oe
A1 cao

[6]

2. 9720 3

$\frac{10}{100} \times 12000 = 1200$
12 000 – 1200 = 10 800
10 800 ÷ 10 =1080
10 800 – 1080 = £9720

M1 for $\frac{10}{100} \times$*12 000 or sight of 1200 or 2400 or 10 800 or 9600*
M1 (dep) for $\frac{10}{100} \times$ *(12 000 –* $\frac{10}{100} \times$*12 000) or sight of 1080*
A1 cao
Alternative markscheme
M2 for $12000 \times \left(1 - \frac{10}{100}\right)^2$
(M1 for $12000 \times \left(1 - \frac{10}{100}\right)$*)*
A1 cao

[3]

3. 15.50 3

100 – 18 = 82
Normal price = $\frac{12.71}{82} \times 100$

B1 for sight of 82 oe
M1 for $\frac{12.71}{82} \times 100$
A1 for 15.50

[3]